

Serial No. 09/733,952
Amdt. dated August 27, 2003
Reply to Office Action of May 30, 2003

Docket No. K-0243

Amendments to the Claims:

This listing of claims will replace all prior versions, and listings, of claims in the application:

Listing of Claims:

1. (Currently Amended) A field emission display comprising a cathode array, the cathode array including:
 - a cathode electrode formed on a substrate;
 - an insulating layer layers and a carbon nanotube film-films for use as emitter electrodes formed alternately on a surface of the cathode electrode; and[[,]]
 - a gate electrode formed on the insulating layer, wherein the gate electrode is a coat of metal sol solution with a 10~200Å grain size containing photoresist.
2. (Currently Amended) The [[A]] field emission display as claimed in claim 1, wherein the insulating layer is a coat of glass paste containing photoresist with a thickness of 0.5~50μm.
3. (Currently Amended) The [[A]] field emission display as claimed in claim 1, wherein the gate electrode is a coat of metal sol solution with a 10~200Å grain size containing photoresist wherein the insulating layer and the carbon nanotube film are formed side-by-side.

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4. (Currently Amended) The [[A]] field emission display as claimed in claim 1 [[3]], wherein the gate electrode is formed of at least one of Cr, Ni, Mo, Cu, Pt[,,] or Ag.

5. (Currently Amended) The [[A]] field emission display as claimed in claim 1 [[3]], wherein the gate electrode has a film thickness of 1000~10,000 Å.

Claims 6-15. (Cancelled)

16. (New) A field emission display with a cathode array, wherein the cathode array comprises:

 a cathode electrode on a substrate;
 an insulating layer on the cathode electrode;
 a carbon nanotube film on the cathode electrode, wherein a side surface of the carbon nanotube film is in contact with at least one side surface of the insulating layer; and
 a gate electrode formed on the insulating layer.

17. (New) The field emission display of claim 16, wherein the carbon nanotube film is in contact with an upper surface of the cathode electrode, wherein the carbon nanotube film has an upper surface parallel to the upper surface of the cathode electrode, and wherein the upper surface of the carbon nanotube film has a width narrower than at least one other width of the carbon nanotube film.

18. (New) The field emission display of claim 16, wherein at least a portion of the carbon nanotube film has a height similar to the gate electrode.

19. (New) The field emission display of claim 16, wherein the insulating layer contacts an upper surface of the cathode electrode, and wherein the insulating layer has a side plane located at about 90 degrees from the upper surface of the cathode electrode.

20. (New) The field emission display of claim 16, wherein the insulating layer contacts an upper surface of the cathode electrode, and wherein the insulating layer has a side plane located at less than 90 degrees from the upper surface of the cathode electrode.

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21. (New) The field emission display of claim 16, wherein the carbon nanotube film contacts an upper surface of the cathode electrode, and wherein the carbon nanotube film has a side plane located at about 90 degrees from the upper surface of the cathode electrode.

22. (New) The field emission display of claim 16, wherein the carbon nanotube film contacts an upper surface of the cathode electrode, and wherein the carbon nanotube film has a side plane located at less than 90 degrees from the upper surface of the cathode electrode.

23. (New) The field emission display of claim 16, wherein the gate electrode is a coat of metal sol solution with an approximately 10 to 200 Å grain size containing photoresist.

24. (New) The field emission display of claim 16, wherein the gate electrode is formed of at least one of Cr, Ni, Mo, Cu, Pt or Ag.

25. (New) The field emission display of claim 16, wherein the gate electrode has a film thickness of approximately 1000 to 10,000 Å.

26. (New) A field emission display with a cathode array, wherein the cathode array comprises:

 a cathode electrode on a substrate;
 an insulating layer on the cathode electrode;
 a carbon nanotube film on the cathode electrode, wherein the carbon nanotube film and the insulating layer along a surface of the cathode electrode; and
 a gate electrode formed on the insulating layer, wherein at least a portion of the carbon nanotube film has a height similar to the gate electrode.

27. (New) The field emission display of claim 26, wherein the carbon nanotube film is in contact with an upper surface of the cathode electrode, wherein the carbon nanotube film has an upper surface parallel to the upper surface of the cathode electrode, and wherein the upper surface of the carbon nanotube film has a width narrower than at least one other width of the carbon nanotube film.

28. (New) The field emission display of claim 26, wherein the insulating layer contacts an upper surface of the cathode electrode, and wherein the insulating layer has a side plane located at about 90 degrees from the upper surface of the cathode electrode.

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29. (New) The field emission display of claim 26, wherein the insulating layer contacts an upper surface of the cathode electrode, and wherein the insulating layer has a side plane located at less than 90 degrees from the upper surface of the cathode electrode.

30. (New) The field emission display of claim 26, wherein the gate electrode is a coat of metal sol solution with an approximately 10 to 200 Å grain size containing photoresist.

31. (New) The field emission display of claim 26, wherein the gate electrode is formed of at least one of Cr, Ni, Mo, Cu, Pt or Ag.

32. (New) The field emission display of claim 26, wherein the gate electrode has a film thickness of approximately 1000 to 10,000 Å.